

Temperature Sensor KMT100 NTC Series



- Industrial NTC Sensor
- Range from 233K to 398K(-40°C to 125°C)
- M20 Standard Connection
- IP65 Protection Class
- 27 mm Copper Probe
- Super Thermal Characteristics and Response Time
- High Temperature Accuracy
- Dedicated for HVAC Application

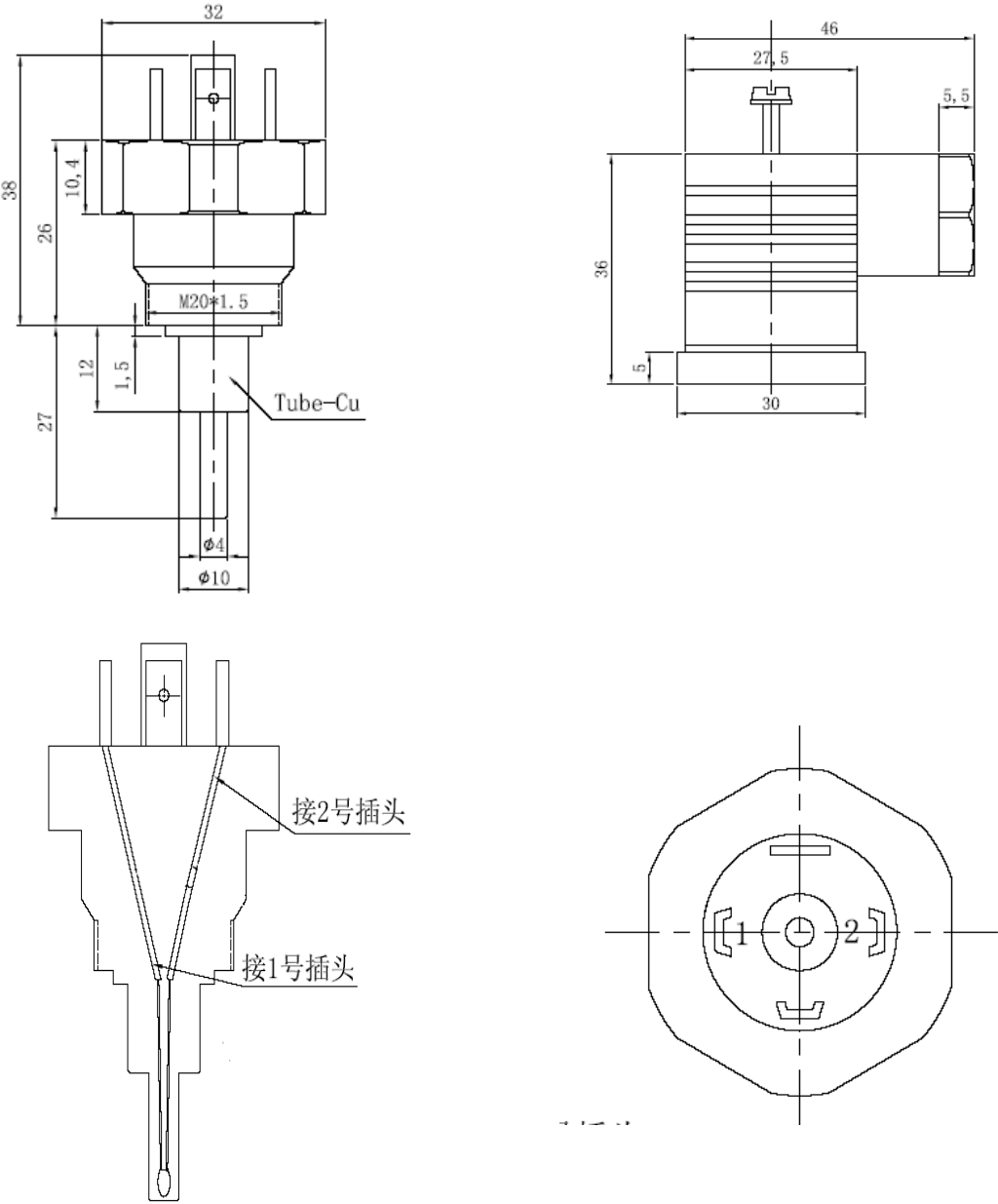
Specification	
Temperature Sensor Type	NTC
Proble temperature range	233K to 398K(-40°C to 125°C)
Temperature Accuracy	$\leq \pm 0.3^\circ\text{C}$ (-40°C to 70°C)
Value B	R25°C=5K Ω ±0.8% B25/85°C=3970K±0.5%
Thermal Dissipation Factor	Min 2.0mW/°C (in air)
Temperature Response Time	≤ 3 s
Cable gland	PG 9
Conductor size	Max. 1.5 mm ²
Standard	DIN EN 175 301-803-A
Housing Color	Black
Construction type	A
Pin dimensions	6.3 mm x 0.8 mm, 4.8 mm x 0.8 mm
Rated voltage	AC/DC 250 V
Rated current	16 A
Contact resistance	≤ 4 mOhm
Suitable cables	4.5 mm to 7 mm diameter
Mounting	M20 screw
Contact surface material	Sn
Contact bearer material	PA
Housing material	PA
Proble material	Copper
Protection class (IEC 60529)	IP65
Housing temperature range	233 K to 398 K(-40 °C to +125 °C)
Inflammability class	94 HB

R-T Table

R-T 表 (R25°C=5KΩ±0.8% B25/85°C=3970K±0.5%)									
T	Rmin.	Rnor.	Rmax.	DT	T	Rmin.	Rnor.	Rmax.	DT
(°C)	(KΩ)	(KΩ)	(KΩ)	(°C)	(°C)	(KΩ)	(KΩ)	(KΩ)	(°C)
-40	169.776	174.210	178.750	0.37	1	15.358	15.570	15.784	0.27
-39	158.695	162.785	166.970	0.37	2	14.601	14.799	14.998	0.26
-38	148.413	152.187	156.047	0.37	3	13.885	14.070	14.256	0.26
-37	138.868	142.351	145.913	0.37	4	13.209	13.381	13.555	0.26
-36	130.002	133.219	136.507	0.36	5	12.569	12.730	12.892	0.25
-35	121.762	124.734	127.771	0.36	6	11.965	12.115	12.266	0.25
-34	114.100	116.847	119.653	0.36	7	11.393	11.533	11.674	0.25
-33	106.972	109.512	112.105	0.36	8	10.851	10.982	11.114	0.24
-32	100.338	102.687	105.085	0.36	9	10.339	10.461	10.584	0.24
-31	94.159	96.333	98.551	0.35	10	9.854	9.968	10.082	0.24
-30	88.402	90.415	92.467	0.35	11	9.394	9.500	9.607	0.23
-29	83.036	84.899	86.799	0.35	12	8.959	9.058	9.157	0.23
-28	78.031	79.757	81.516	0.35	13	8.546	8.638	8.731	0.23
-27	73.361	74.960	76.590	0.34	14	8.155	8.241	8.328	0.22
-26	69.001	70.483	71.993	0.34	15	7.783	7.864	7.945	0.22
-25	64.928	66.303	67.703	0.34	16	7.431	7.506	7.582	0.22
-24	61.123	62.399	63.697	0.34	17	7.097	7.167	7.237	0.21
-23	57.566	58.749	59.953	0.33	18	6.780	6.845	6.911	0.21
-22	54.239	55.337	56.454	0.33	19	6.478	6.539	6.600	0.20
-21	51.125	52.145	53.182	0.33	20	6.192	6.249	6.306	0.20
-20	48.211	49.158	50.121	0.33	21	5.920	5.973	6.026	0.20
-19	45.481	46.361	47.256	0.32	22	5.662	5.711	5.761	0.19
-18	42.924	43.742	44.572	0.32	23	5.416	5.462	5.508	0.19
-17	40.526	41.287	42.059	0.32	24	5.182	5.225	5.268	0.19
-16	38.278	38.985	39.703	0.32	25	4.960	5.000	5.040	0.18
-15	36.169	36.826	37.493	0.31	26	4.746	4.786	4.825	0.19
-14	34.189	34.801	35.421	0.31	27	4.543	4.582	4.621	0.19
-13	32.330	32.900	33.477	0.31	28	4.350	4.388	4.426	0.20
-12	30.584	31.114	31.651	0.31	29	4.166	4.203	4.240	0.21
-11	28.943	29.437	29.936	0.30	30	3.991	4.027	4.064	0.21
-10	27.401	27.860	28.325	0.30	31	3.824	3.859	3.895	0.22
-9	25.950	26.378	26.811	0.30	32	3.665	3.700	3.735	0.23
-8	24.585	24.983	25.387	0.29	33	3.513	3.547	3.582	0.23
-7	23.300	23.671	24.047	0.29	34	3.369	3.402	3.436	0.24
-6	22.091	22.436	22.786	0.29	35	3.231	3.264	3.297	0.25
-5	20.951	21.273	21.599	0.29	36	3.100	3.132	3.164	0.25
-4	19.877	20.178	20.482	0.28	37	2.974	3.006	3.038	0.26
-3	18.865	19.145	19.428	0.28	38	2.855	2.886	2.917	0.27
-2	17.911	18.172	18.436	0.28	39	2.741	2.771	2.801	0.27
-1	17.010	17.254	17.500	0.27	40	2.632	2.661	2.691	0.28
0	16.160	16.388	16.617	0.27	41	2.528	2.557	2.586	0.286

R-T 表 (R25°C=5KΩ±0.8% B25/85°C=3970K±0.5%)									
T	Rmin.	Rnor.	Rmax.	DT	T	Rmin.	Rnor.	Rmax.	DT
(°C)	(KΩ)	(KΩ)	(KΩ)	(°C)	(°C)	(KΩ)	(KΩ)	(KΩ)	(°C)
42	2.429	2.457	2.485	0.293	84	0.544	0.554	0.565	0.62
43	2.334	2.361	2.289	0.300	85	0.527	0.537	0.548	0.62
44	2.243	2.270	2.297	0.307	86	0.511	0.521	0.531	0.63
45	2.156	2.183	2.209	0.314	87	0.495	0.505	0.515	0.64
46	2.073	2.099	2.125	0.321	88	0.480	0.489	0.499	0.65
47	1.994	2.019	2.045	0.328	89	0.465	0.475	0.484	0.66
48	1.919	1.943	1.968	0.335	90	0.451	0.460	0.469	0.67
49	1.846	1.870	1.894	0.342	91	0.437	0.446	0.455	0.68
50	1.777	1.800	1.824	0.349	92	0.424	0.433	0.442	0.68
51	1.710	1.733	1.756	0.356	93	0.412	0.420	0.429	0.69
52	1.647	1.669	1.692	0.364	94	0.399	0.408	0.416	0.70
53	1.586	1.608	1.630	0.371	95	0.388	0.396	0.404	0.71
54	1.528	1.549	1.571	0.378	96	0.376	0.384	0.392	0.72
55	1.472	1.493	1.514	0.385	97	0.365	0.373	0.381	0.73
56	1.418	1.439	1.459	0.393	98	0.355	0.362	0.370	0.74
57	1.367	1.387	1.407	0.400	99	0.344	0.352	0.359	0.75
58	1.318	1.337	1.357	0.408	100	0.334	0.342	0.349	0.76
59	1.271	1.290	1.309	0.415	101	0.325	0.332	0.339	0.77
60	1.226	1.244	1.263	0.423	102	0.315	0.322	0.329	0.77
61	1.182	1.200	1.219	0.430	103	0.306	0.313	0.320	0.78
62	1.141	1.158	1.176	0.438	104	0.298	0.304	0.311	0.79
63	1.101	1.118	1.135	0.446	105	0.289	0.296	0.303	0.80
64	1.062	1.079	1.096	0.453	106	0.281	0.288	0.294	0.81
65	1.026	1.042	1.059	0.461	107	0.273	0.280	0.286	0.82
66	0.990	1.006	1.023	0.469	108	0.266	0.272	0.278	0.83
67	0.956	0.972	0.988	0.477	109	0.259	0.264	0.271	0.84
68	0.924	0.939	0.955	0.484	110	0.251	0.257	0.263	0.85
69	0.893	0.907	0.923	0.492	111	0.245	0.250	0.256	0.86
70	0.862	0.877	0.892	0.500	112	0.238	0.243	0.249	0.87
71	0.834	0.848	0.862	0.508	113	0.231	0.237	0.242	0.88
72	0.806	0.820	0.834	0.516	114	0.225	0.230	0.236	0.89
73	0.779	0.793	0.806	0.524	115	0.219	0.224	0.230	0.90
74	0.753	0.767	0.780	0.532	116	0.213	0.218	0.224	0.91
75	0.729	0.742	0.755	0.540	117	0.208	0.213	0.218	0.92
76	0.705	0.718	0.730	0.549	118	0.202	0.207	0.212	0.93
77	0.682	0.694	0.707	0.557	119	0.197	0.201	0.206	0.94
78	0.660	0.672	0.684	0.565	120	0.192	0.196	0.201	0.95
79	0.639	0.651	0.662	0.573	121	0.187	0.191	0.196	0.96
80	0.618	0.630	0.642	0.582	122	0.182	0.186	0.191	0.97
81	0.599	0.610	0.621	0.59	123	0.177	0.181	0.186	0.98
82	0.580	0.591	0.602	0.60	124	0.172	0.177	0.181	0.99
83	0.562	0.572	0.583	0.61	125	0.168	0.172	0.176	1.00

Connector Wiring



Pin 1 and pin 2 are the temperature signal output terminals.